

## Abstract

An electric floor heating system, comprising an electric floor heating panel and a floor heating material formed by laminating integrally an upper material with a thickness of (d), a heat diffusing material with a thickness of (t), and a lower material, wherein the upper material thickness (d) and the heat diffusing material thickness (t) are set to fulfill relational expression (I):

$$t \geq a \times d^2 + b \quad (I)$$

(d: 0.01 to 12 mm, t: 30 to 1,000  $\mu$ m)

into which coefficients a and b predetermined by the maximum value (p2) of the maximum power are introduced, thereby accomplishing a comfortable heating environment without causing low temperature burn.